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**Correlation of sleepiness and physical activity and functional outcomes in patients with type 2 diabetes**

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**Introduction:** Sleepiness refers to feeling drowsy or an increased tendency to fall asleep and manifests as hypersomnic behaviors and decreased functional outcomes. Sleepiness has negative effects on healthy life-style behaviors is that while these behaviors such as exercise and physical activity are important for control of diabetes. The purpose of this study was to determine the association between sleepiness with physical activity and the functional outcome of sleep in patients with type II diabetes.

**Materials and Methods:** In this cross-sectional study 220 diabetic patients who referred to the Diabetes Association of Iran in 2010 were studied. Data collection was performed using questionnaires that included items regarding personal information, Epworth Sleepiness Scale (ESS) and Functional Outcomes of Sleep (FOSQ).

**Findings:** The results showed that 33.6 % of participants were sleepy. About 72.6% of subjects were sedentary. There was no significant difference between physical activity and sleepiness. 57.7 % of functional outcomes scores of the total samples were  $\geq 67$ . A significant statistical difference was found between sleepiness and the functional outcomes ( $P < 0.001$ ).

**Discussion and conclusion:** The majority of study samples were not sleepy. The mean score of the functional outcomes in non-sleepy group was higher than sleepy group. It can be concluded that sleepiness has effect on the functional outcome, and sleepy people have lower functional outcome. Lower functional outcome can influence patient's life-style and disease control. Though in this study sleepiness and physical activity did not have a correlation, physical activity and exercise are important factors of people's life that could be affected by sleepiness. Therefore, sleepiness is an important barrier for regular daily physical activity as part of a healthy lifestyle that required more attention to sleep problems and sleepiness in patients with diabetes.

**Keywords:** sleepiness, functional outcome of sleep, physical activity, diabetes typ